

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: January 10, 2013

API #: 47-097-03842

Farm name: Bonita Lea Wilfong Nantz Operator Well No.: Thornhill #1-WV0440

LOCATION: Elevation: 1508 Quadrangle: Buckhannon 7.5'

District: Buckhannon County: Upshur  
Latitude: 38 Feet South of 57 Deg. 30 Min. Sec.  
Longitude 80 Feet West of 12 Deg. 30 Min. Sec.

Company: Mountain V Oil & Gas, Inc.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
PO Box 470				
Bridgeport WV 26330	13 3/8"	31'	31'	sanded in
Agent: S. Michael Shaver	9 5/8"	504'	504'	154 sks
Inspector: Bill Hatfield	7"	1605'	1605'	255 sks
Date Permit Issued: 7-12-2012	4 1/2"	7183'	7183'	150 sks
Date Well Work Commenced: 10-1-12				
Date Well Work Completed: 10-11-12				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7244				
Total Measured Depth (ft): 7244				
Fresh Water Depth (ft.):				
Salt Water Depth (ft.): 880,1460				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 162, 243				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7018-7130

Gas: Initial open flow Odor MCF/d Oil: Initial open flow N/A Bbl/d

Final open flow 164 MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests 216 Hours

Static rock Pressure 2500 psig (surface pressure) after 24 Hours

Second producing formation Pay zone depth (ft)

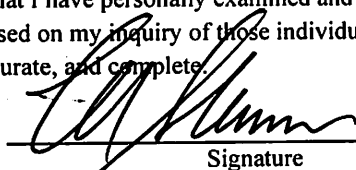
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

2-4-13  
Date

Revised

Were core samples taken? Yes \_\_\_\_\_ No ☒

Were cuttings caught during drilling? Yes ☒ No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR/NEU/DEN/IND/TEMP/AUDIO

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

Perforations: 7077-7110 (92 Holes)

1702 sks 80/100

4006 sks 40/70

Breakdown 5020 psi

14118 bbls fluid

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered: \_\_\_\_\_ Top Depth \_\_\_\_\_ / \_\_\_\_\_ Bottom Depth  
Surface: \_\_\_\_\_

\*\*\*Driller's Log

Fill	0 - 15	Tully 6900-6920
Sand/Shale	15-164	Silt/Shale 6920-7018
Coal	162-164	Marcellus 7018-7130
Sand/Shale	164-243	Ononodaga 7130- 7140
Coal	243-253	Lime 7140-TD
Sand/Shale	253-1247	
Big Lime	1247-1358	
Injun	1358-1451	
Silt/Shale	1451-6000	**Driller Log did not show any formations.

\*\*\*E LOG \*\*\*Well was logged from TD to 6000 ft

Silt/Shale	6000- 6134
Sand	6134-6154
Silt/Shale	6154-6880
Geneseo	6880-6900

WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: January 10, 2013  
API #: 47-097-03753

Farm name: Marvin & Connie Wamsley Operator Well No.: Wamsley #1-WV0396

LOCATION: Elevation: 1612 Quadrangle: Buckhannon 7.5'

District: Washington County: Upshur  
Latitude: 38 Feet South of 57 Deg. 30 Min.  Sec.  
Longitude 80 Feet West of 12 Deg. 30 Min.  Sec.

Company: Mountain V Oil & Gas, Inc.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>PO Box 470</u>				
<u>Bridgeport WV 26330</u>	<u>13 3/8"</u>	<u>31'</u>	<u>31'</u>	<u>sanded in</u>
Agent: <u>S. Michael Shaver</u>	<u>9 5/8"</u>	<u>275'</u>	<u>275'</u>	<u>125 sks</u>
Inspector: <u>Bill Hatfield</u>	<u>7"</u>	<u>1604'</u>	<u>1604'</u>	<u>245 sks</u>
Date Permit Issued: <u>10-22-2010</u>	<u>4 1/2"</u>	<u>7145'</u>	<u>7145'</u>	<u>150 sks</u>
Date Well Work Commenced: <u>8-25-12</u>				
Date Well Work Completed: <u>8-30-12</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>7210</u>				
Total Measured Depth (ft): <u>7210</u>				
Fresh Water Depth (ft.): <u>64, 212</u>				
Salt Water Depth (ft.): <u>880</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>N/A</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7010-7116

Gas: Initial open flow Odor MCF/d Oil: Initial open flow N/A Bbl/d

Final open flow 422 MCF/d Final open flow  Bbl/d

Time of open flow between initial and final tests 216 Hours

Static rock Pressure 940 psig (surface pressure) after 24 Hours

Second producing formation  Pay zone depth (ft)

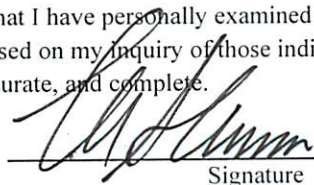
Gas: Initial open flow  MCF/d Oil: Initial open flow  Bbl/d

Final open flow  MCF/d Final open flow  Bbl/d

Time of open flow between initial and final tests  Hours

Static rock Pressure  psig (surface pressure) after  Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

2-4-13  
Date

RECEIVED  
Office of Oil and Gas  
FEB 06 2013  
West Virginia Department of  
Environmental Protection



Were core samples taken? Yes \_\_\_\_\_ No ☒

Were cuttings caught during drilling? Yes ☒ No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR/NEU/DEN/IND/TEMP/AUDIO

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

Perforations: 7094-7106 (48 holes) 7070-7084 (56 holes) 7062-7068 (24 holes) 128 total holes

2005 sks 80/100

3615 sks 40/70

Breakdown 2800 psi

14178 bbls fluid

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

**\*\*Drillers Log**

Fill 0-15

Sand/shale 15-1312

Big Lime 1312-1448

Injun 1448-1552

Sand/Shale 1552-3835

Benson 3835-3867

Sand/Shale/Silt 3867-6842

Geneseo 6842-6879 (E Log)

Tully 6879-6910 (E Log)

Shale/Silt 6910-7010 (E Log)

Marcellus 7010-7116 (E Log)

Lime 7116-TD (E Log)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: January 10, 2013  
API #: 47-097-03844

Farm name: David & Sherri Craddock Operator Well No.: Shaver Hicks #10-WV0447

LOCATION: Elevation: 1552 Quadrangle: Adrian 7.5'

District: Meade County: Upshur  
Latitude: 38 Feet South of 55 Deg. 00 Min. Sec.  
Longitude 80 Feet West of 15 Deg. 00 Min. Sec.

Company: Mountain V Oil & Gas, Inc.

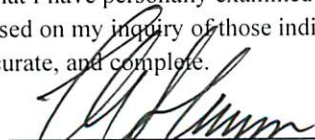
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
PO Box 470				
Bridgeport WV 26330	13 3/8"	31'	31'	sanded in
Agent: S. Michael Shaver	9 5/8"	305'	305'	125 sks
Inspector: Bill Hatfield	7"	1872'	1872'	275 sks
Date Permit Issued: 11-5-2012	4 1/2"	7154'	7154'	150 sks
Date Well Work Commenced: 11-27-12				
Date Well Work Completed: 12-5-12				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7209				
Total Measured Depth (ft): 7209				
Fresh Water Depth (ft.): 86, 118, 222				
Salt Water Depth (ft.): 990, 1155				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7000-7110  
Gas: Initial open flow Odor MCF/d Oil: Initial open flow N/A Bbl/d  
Final open flow 422 MCF/d Final open flow Bbl/d  
Time of open flow between initial and final tests 216 Hours  
Static rock Pressure 2200 psig (surface pressure) after 24 Hours

Second producing formation Pay zone depth (ft)  
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d  
Final open flow MCF/d Final open flow Bbl/d  
Time of open flow between initial and final tests Hours  
Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

2-4-13  
Date

Revised

RECEIVED  
Office of Oil and Gas  
FEB 03 2013  
Department of Environmental Protection

Were core samples taken? Yes \_\_\_\_\_ No ☒

Were cuttings caught during drilling? Yes ☒ No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR/NEU/DEN/IND/TEMP/AUDIO

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

Perforations: 7056-7092 (108 Holes)

1475 sks 80/100

4197 sks 40/70

Breakdown 2229 psi

14276 bbls fluid

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:	Top Depth	/	Bottom Depth
<u>Surface:</u>			

\*\*\*Drillers Log

Fill 0-15	Marcellus 7000-7110 (E Log)
Sand/Shale 15-1250	Lime 7110-TD (E Log)
Big Lime 1250-1519	
Injun 1519-1649	
Sand/Shale/Silt 1649-2297	
5th Sand 2297-2389	
Sand/Shale/Silt 2389-3499	
3rd Riley 3499-3684	
Sand/Shale/Silt 3684-3899	
Benson 3899-3989	
Sand/Shale/Silt 3989-6844	
Geneseo 6844-6878 (E Log)	
Tully 6878-6908 (E Log)	
Shale/Silt 6908-7000 (E Log)	



WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: January 10, 2013  
API #: 47-097-03843

Farm name: Hayden Morgan ET UX Operator Well No.: Hayden Morgan #2-WV0446

LOCATION: Elevation: 1554 Quadrangle: Adrian 7.5'

District: Meade County: Upshur  
Latitude: 38 Feet South of 55 Deg. 00 Min. 00 Sec. 00  
Longitude 80 Feet West of 15 Deg. 00 Min. 00 Sec. 00

Company: Mountain V Oil & Gas, Inc.

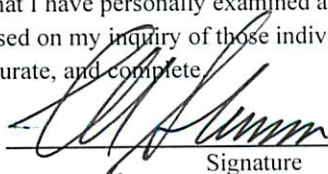
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
PO Box 470				
Bridgeport WV 26330	13 3/8"	31'	31'	sanded in
Agent: S. Michael Shaver	9 5/8"	305'	305'	125 sks
Inspector: Bill Hatfield	7"	1608'	1608'	245 sks
Date Permit Issued: 9-21-2012	4 1/2"	7156'	7156'	150 sks
Date Well Work Commenced: 10-13-12				
Date Well Work Completed: 10-18-12				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7212				
Total Measured Depth (ft): 7212				
Fresh Water Depth (ft.): 86, 125, 250				
Salt Water Depth (ft.): 880, 1460				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 6990-7100  
Gas: Initial open flow Odor MCF/d Oil: Initial open flow N/A Bbl/d  
Final open flow Odor MCF/d Final open flow Odor Bbl/d  
Time of open flow between initial and final tests 216 Hours  
Static rock Pressure 800 psig (surface pressure) after 24 Hours

Second producing formation                      Pay zone depth (ft)                       
Gas: Initial open flow                      MCF/d Oil: Initial open flow                      Bbl/d  
Final open flow                      MCF/d Final open flow                      Bbl/d  
Time of open flow between initial and final tests                      Hours  
Static rock Pressure                      psig (surface pressure) after                      Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

2-4-13  
Date

RECEIVED  
Office of Oil and Gas  
FEB 03 2013  
WV Department of  
Environmental Protection

*Revised*

Were core samples taken? Yes \_\_\_\_\_ No ☒

Were cuttings caught during drilling? Yes ☒ No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR/NEU/DEN/IND/TEMP/AUDIO

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

Perforations: 7042-7076 (104 Holes)

1676 sks 80/100

3902 sks 40/70

Breakdown 3309 psi

13960 bbls fluid

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

**\*\*Driller's Log**

Fill 0-15

Sand/Shale 15-1403

Big Lime 1403-1668

Injun 1668-1850

Sand/Shale/Silt 1850-2480

5th Sand 2480-2570

Sand/Shale/Silt 2570-4085

Benson 4085-4200

Sand/Shale/Silt 4200-6832

Geneseo 6832-6867

Tully 6867-6910

Shale/Silt 6910-6990

Marcellus 6990-7100

Lime 7100-TD



WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: January 10, 2013  
API #: 47-097-03766

Farm name: Timothy G Hunter Operator Well No.: Gary Jones #1-WV0349

LOCATION: Elevation: 1589 Quadrangle: Buckhannon 7.5'

District: Washington County: Upshur  
Latitude: 38 Feet South of 57 Deg. 30 Min. Sec.  
Longitude 80 Feet West of 12 Deg. 30 Min. Sec.

Company: Mountain V Oil & Gas, Inc.

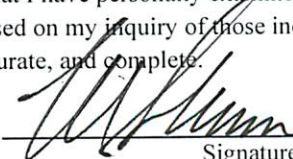
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
PO Box 470				
Bridgeport WV 26330	13 3/8"	31'	31'	sanded in
Agent: S. Michael Shaver	9 5/8"	345'	345'	115 sks
Inspector: Bill Hatfield	7"	1731'	1731'	255 sks
Date Permit Issued: 10-21-2010	4 1/2"	7145'	7145'	150 sks
Date Well Work Commenced: 9-18-12				
Date Well Work Completed: 9-28-12				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7213				
Total Measured Depth (ft): 7213				
Fresh Water Depth (ft.): 64, 212				
Salt Water Depth (ft.): 880, 1460				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 310				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 6890-6980  
Gas: Initial open flow Odor MCF/d Oil: Initial open flow N/A Bbl/d  
Final open flow 198 MCF/d Final open flow Bbl/d  
Time of open flow between initial and final tests 216 Hours  
Static rock Pressure 2200 psig (surface pressure) after 24 Hours

Second producing formation Pay zone depth (ft)  
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d  
Final open flow MCF/d Final open flow Bbl/d  
Time of open flow between initial and final tests Hours  
Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

2-4-13  
Date



RECEIVED  
Office of Oil and Gas  
JAN 10 2013  
WV Department of  
Environmental Protection

Were core samples taken? Yes \_\_\_\_\_ No ☒

Were cuttings caught during drilling? Yes ☒ No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR/NEU/DEN/IND/TEMP/AUDIO

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

Perforations: 7026-7070 (102 Holes)

1977 sks 80/100

3918 sks 40/70

Breakdown 3620 psi

14404 bbls fluid

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:	Top Depth	/	Bottom Depth
<u>Surface:</u>			

Fill 0-20

Sand/Shale 20-310

Coal 310-320

Sand/Shale 320-1300

Big Lime 1300-1385

Injun 1385-1590

Sand/Shale 1590-3865

Benson 3865-3874

Sand/Shale/Silt 3874-6800

Geneseo 6800-6842 (E Log)

Tully 6842-6890 (E Log)

Shale 6890-6980 (E Log)

Marcellus 6890-7090 (E Log)

Lime 7090-TD (E Log)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 1/03/2013

API #: 51-01484

Farm name: Richard E. Mccausland Operator Well No.: SHL4AHS

LOCATION: Elevation: 1252.12 Quadrangle: Majorsville

District: Sand Hill County: Marshall

Latitude: 12,509' Feet South of 40 Deg. 00 Min. 00 Sec.

Longitude 2,797' Feet West of 80 Deg. 32 Min. 30' Sec.

Company: CNX Gas Company, LLC

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
1000 Consol Energy Dr. Canonsburg, PA	20"	40'	40'	5.5 yds
Agent: Kent Wright				
Inspector: Derek Haught				
Date Permit Issued: 5/11/2011				
Date Well Work Commenced: 5/19/2012				
Date Well Work Completed: 5/21/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 40'				
Total Measured Depth (ft): 40'				
Fresh Water Depth (ft.): not penetrated				
Salt Water Depth (ft.): not penetrated				
Is coal being mined in area (N/Y)? yes				
Coal Depths (ft.): none penetrated				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation N/A Pay zone depth (ft) N/A

Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d

Final open flow N/A MCF/d Final open flow N/A Bbl/d

Time of open flow between initial and final tests N/A Hours

Static rock Pressure N/A psig (surface pressure) after N/A Hours

Second producing formation N/A Pay zone depth (ft) N/A

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

Received  
Office of Oil & Gas

JAN 10 2013

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Laura L. Aelkins  
Signature

1-7-13  
Date

51-01484

Were core samples taken? Yes \_\_\_\_\_ No X

Were cuttings caught during drilling? Yes \_\_\_\_\_ No X

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list No

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

None

Plug Back Details Including Plug Type and Depth(s):

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
<u>Surface:</u>			

Conductors only were set and at a depth of 40'.



REVISED

WR-35  
Rev (9-11)State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well WorkDATE: 01/10/2013  
API #: 47-023-00035

Farm name: ALLEGHENY MINING CORP. Operator Well No.: 1H

LOCATION: Elevation: 3,204' GL Quadrangle: GRENNLAND GAP 7.5

District: UNION County: GRANT  
Latitude: 800 Feet South of 39 Deg. 12 Min. 30 Sec.  
Longitude 7460 Feet West of 79 Deg. 12 Min. 30 Sec.

Company: CARRIZO (MARCELLUS) WV LLC

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
500 DALLAS, SUITE 2300				
HOUSTON, TX 77002	13-3/8"	398'	398'	552 cft
Agent:	9-5/8"	3,288'	3,288'	1362 cft
Inspector:	5-1/2"	13,466'	13,466'	2558 cft
Date Permit Issued: 10/26/11				
Date Well Work Commenced: 01/09/12				
Date Well Work Completed: 5/26/12				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 10,271'				
Total Measured Depth (ft): 13,476'				
Fresh Water Depth (ft.): 100'				
Salt Water Depth (ft.): NA				
Is coal being mined in area (N/Y)? NO				
Coal Depths (ft.):				
Void(s) encountered (N/Y) Depth(s) NONE				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation MARCELLUS SHALE Pay zone depth (ft) 9,800

Gas: Initial open flow 635 MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 754 MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 48 Hours

Static rock Pressure 1000 psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

Received  
Office of Oil & Gas

JAN 11 2013

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

*Carola Pruitt*  
Signature

01/10/13  
Date



Were core samples taken? Yes \_\_\_\_\_ No X

Were cuttings caught during drilling? Yes X No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list \_\_\_\_\_  
DENSITY, RESISTIVITY, SONIC & ECS LOGS

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

PERFORATED AND FRAC'D 12 STAGES FROM 10,273' (md) - 13,342' (md) WITH  
3,889,600 LBS SAND AND 96,904 BBLS FLUID

Plug Back Details Including Plug Type and Depth(s): KICK-OFF PLUG: 272 SACKS CLASS A  
9,974' - 10,202'

Formations Encountered: \_\_\_\_\_ Top Depth \_\_\_\_\_ / \_\_\_\_\_ Bottom Depth \_\_\_\_\_  
Surface: \_\_\_\_\_

DK GREY SILTSTONE	0	600
GREY SANDSTONE	600	1100
RED/BROWN SHALE	1100	1900
DK GREY LIMESTONE	1900	2300
DK GREY SILTSTONE	2300	3500
DK GREY SHALE	3500	4450
LT GREY SANDSTONE	4450	4600
LT GREY SILTSTONE	4600	4900
DK GREY SHALE	4900	5500
LT GREY SILTSTONE	5500	5700
DK GREY SHALE	5700	9358
TULLY LIMESTONE	9358	9371
HAMILTON SHALE	9371	9800
UPPER MARCELLUS SHALE	9800	9843
CHERRY VALLEY LIMESTONE	9843	9895
LOWER MARCELLUS SHALE	9895	9963
ONONDAGO	9963	10090
ORISKANY SANDSTONE	10090	

WR-35

7/5/12

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

API # 47-049-02183

**Well Operator's Report of Well Work**

Farm name: Donna

Operator Well No: #6H

Location: Elevation: 1,171

Quadrangle: Mannington

District: Lincoln

County: Marion

Latitude: 39 ° 34' 27.6"

Longitude: 80 ° 17' 40.8"

Company: Eastern American Energy Corporation  
501 56<sup>th</sup> Street  
Charleston, WV 25304

Agent: Rodney A. Winters

Inspector:

Permit Issued: 9/1/2011

Well work commenced: 10/27/2011

Well work completed: 7/03/2012

Verbal plugging

Permission granted on:

Rotary X Cable    Rig

Total Depth (ft): 10,166'

Fresh Water depths (ft): 236'

Salt-water depths (ft):

Is coal being mined in the area? (Y/N): N

Coal depths (ft): 617'

Casing & Tubing	Used in Well	Left in Well	Cement Fill Up Cu. Ft
20"	40'	40'	40 cu ft.
13 3/8"	741'	741'	721 cu ft
9 5/8"	3,958'	3,958'	1280 cu ft
5 1/2"	10,166'	10,166'	1248 cu ft
2-3/8"	8,049'	8,049'	Tubing head

**Open Flow Data**

Gas: Initial open flow 114 MCF/d Oil: Initial open flow 0 Bbl/dFinal open flow 851 MCF/dFinal open flow 0 Bbl/dTime of open flow between initial and final tests 1 DaysStatic rock pressure: 2716 psi Surface pressure after 12 Hours.1<sup>st</sup> Producing Formation Devonian Shale Pay zone depth (ft) 7533'-7688'2<sup>nd</sup> Producing Formation   Pay zone depth (ft)  3<sup>rd</sup> Producing Formation   Pay zone depth (ft)  

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

  
\_\_\_\_\_, Agent

For: Energy Corporation of America

Rodney A. Winters

By: Designated Agent

Date: July 11, 2012

JUL 12 2012

STAGE ONE: Devonian Shale  
30 Holes 10,060' – 9,832'  
Water Frac 301,400 Lbs sand. 7,766 bbl CFL

STAGE TWO: Devonian Shale  
30 Holes 9,723' – 9,495'  
Water Frac 299,800 Lbs sand. 7,405 bbl CFL

STAGE THREE: Devonian Shale  
30 Holes 9,376' – 9,158'  
Water Frac 301,200 Lbs sand. 7,600 bbl CFL

STAGE FOUR: Devonian Shale  
30 Holes 9,048' – 8,822'  
Water Frac 299,400 Lbs sand. 7,465 bbl CFL

STAGE FIVE: Devonian Shale  
30 Holes 8,712' – 8,492'  
Water Frac 302,900 Lbs sand. 7,464 bbl CFL

STAGE SIX: Devonian Shale  
30 Holes 8,375' – 8,146'  
Water Frac 300,800 Lbs sand. 7,016 bbl CFL

12-1-2021

<b>FORMATION COLOR, HARD OR SOFT</b>	<b>TOP FEET</b>	<b>BOTTOM FEET</b>
Top Fill	0	40
Sand & Shale	40	1150
Maxton	1700	1762
Little Lime	1906	1920
Pencil Cave	1920	1938
Big Lime	1938	2030
Big Injun	2030	2138
50 Foot	2632	2683
0 Foot	2850	2890
Gordon	2923	2988
Fifth	3101	3119
Benson	4696	4708
Alexander	5624	5648
Geneseo	7402	7450
Tully	7450	7490
Hamilton	7490	7533
Upper Marcellus	7533	7618
Cherry Valley	7618	7623
Lower Marcellus	7623	7688
Onondaga	7688	7703

WR-35

7/3/12

**State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas**

API # 47-049-02182

**Well Operator's Report of Well Work**

Farm name: Donna

Operator Well No: #5H

Location: Elevation: 1,171

Quadrangle: Mannington

District: Lincoln

County: Marion

Latitude: 39 ° 34' 27.6"

Longitude: 80 ° 17' 40.8"

Company: Eastern American Energy Corporation  
501 56<sup>th</sup> Street  
Charleston, WV 25304

Agent: Rodney A. Winters

Inspector:

Permit Issued: 8/1/2011

Well work commenced: 10/27/2011

Well work completed: 7/03/2012

Verbal plugging

Permission granted on:

Rotary ☒ Cable ☐ Rig

Total Depth (ft): 11,288'

Fresh Water depths (ft): 236'

Salt-water depths (ft):

Is coal being mined in the area? (Y/N): N

Coal depths (ft): 617'

Casing & Tubing	Used in Well	Left in Well	Cement Fill Up Cu. Ft
20"	40'	40'	40 cu ft.
13 3/8"	722'	722'	722 cu ft
9 5/8"	3,958'	3,958'	1727 cu ft
5 1/2"	11,288'	11,288'	1584 cu ft
2-3/8"	7,988'	7,988'	Tubing head

## Open Flow Data

Gas: Initial open flow 835 MCF/d Oil: Initial open flow 0 Bbl/dFinal open flow 736 MCF/d Final open flow 0 Bbl/dTime of open flow between initial and final tests 1 DaysStatic rock pressure: 2690 psi Surface pressure after 12 Hours.1<sup>st</sup> Producing Formation Devonian Shale Pay zone depth (ft) 7533'-7688'2<sup>nd</sup> Producing Formation                      Pay zone depth (ft)                     3<sup>rd</sup> Producing Formation                      Pay zone depth (ft)                     

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

  
\_\_\_\_\_, Agent  
For: Energy Corporation of America

Rodney A. Winters  
By: Designated Agent

Date: July 11, 2012

JUL 12 2012



STAGE ONE:	Devonian Shale		
30 Holes	11,227' – 11,067'		
Water Frac	99,400 Lbs sand.	6,045 bbl CFL	
STAGE TWO:	Devonian Shale		
30 Holes	10,775' – 10,547'		
Water Frac	68,000 Lbs sand.	4,128 bbl CFL	
STAGE THREE:	Devonian Shale		
30 Holes	10,432' – 10,210'		
Water Frac	300,200 Lbs sand.	7,596 bbl CFL	
STAGE FOUR:	Devonian Shale		
30 Holes	10,050' – 9,873'		
Water Frac	301,700 Lbs sand.	7,623 bbl CFL	
STAGE FIVE:	Devonian Shale		
30 Holes	9,764' – 9,528'		
Water Frac	298,700 Lbs sand.	7,482 bbl CFL	
STAGE SIX:	Devonian Shale		
30 Holes	9,427' – 9,196'		
Water Frac	312,700 Lbs sand.	7,558 bbl CFL	
STAGE SEVEN:	Devonian Shale		
30 Holes	9,092' – 8,862'		
Water Frac	299,900 Lbs sand.	7,354 bbl CFL	
STAGE EIGHT:	Devonian Shale		
30 Holes	8,748' – 8,525'		
Water Frac	300,100 Lbs sand.	7,410 bbl CFL	
STAGE NINE:	Devonian Shale		
30 Holes	8,416' – 8,192'		
Water Frac	291,500 Lbs sand.	7,192 bbl CFL	

JUL 12 2011

FORMATION COLOR, HARD OR SOFT	TOP FEET	BOTTOM FEET
Top Fill	0	40
Sand & Shale	40	1150
Maxton	1700	1762
Little Lime	1906	1920
Pencil Cave	1920	1938
Big Lime	1938	2030
Big Injun	2030	2138
50 Foot	2632	2683
0 Foot	2850	2890
Gordon	2923	2988
Fifth	3101	3119
Benson	4696	4708
Alexander	5624	5648
Geneseo	7402	7450
Tully	7450	7490
Hamilton	7490	7533
Upper Marcellus	7533	7618
Cherry Valley	7618	7623
Lower Marcellus	7623	7688
Onondaga	7688	7703

JUL 1 2007

WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 1/03/2013

API #: 51-01460

Farm name: Richard E. Mccausland Operator Well No.: SHL4BHS

LOCATION: Elevation: 1250.21 Quadrangle: Majorsville

District: Sand Hill County: Marshall  
Latitude: 12.525' Feet South of 40 Deg. 00 Min. 00 Sec.  
Longitude 2.808' Feet West of 80 Deg. 32 Min. 30' Sec.

Company: CNX Gas Company, LLC

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
1000 Consol Energy Dr. Canonsburg, PA	20"	40'	40'	5.5 yds
Agent: Kent Wright				
Inspector: Derek Haught				
Date Permit Issued: 5/11/2011				
Date Well Work Commenced: 5/18/2012				
Date Well Work Completed: 5/21/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 40'				
Total Measured Depth (ft): 40'				
Fresh Water Depth (ft.): not penetrated				
Salt Water Depth (ft.): not penetrated				
Is coal being mined in area (N/Y)? yes				
Coal Depths (ft.): none penetrated				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation N/A Pay zone depth (ft) N/A

Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d

Final open flow N/A MCF/d Final open flow N/A Bbl/d

Time of open flow between initial and final tests N/A Hours

Static rock Pressure N/A psig (surface pressure) after N/A Hours

Second producing formation N/A Pay zone depth (ft) N/A

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

Received  
Office of Oil & Gas

JAN 10 2013

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Laura L. Adkins  
Signature

1-7-13  
Date

51-01460

Were core samples taken? Yes \_\_\_\_\_ No X

Were cuttings caught during drilling? Yes \_\_\_\_\_ No X

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list No

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

None

Plug Back Details Including Plug Type and Depth(s):

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
<u>Surface:</u>			

Conductors only were set and at a depth of 40'.

WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 8-23-2012  
API #: 47-033-05628

Farm name: Joellen F. Allman Operator Well No.: 13142

LOCATION: Elevation: 1245.39 Quadrangle: West Milford

District: Union County: Harrison  
Latitude: 2385 Feet South of 39 Deg. 10 Min. 00 Sec.  
Longitude 2859 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: Dominion Transmission, Inc.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
445 West Main St Clarksburg, WV 26301				
Agent: James D. Blasingame	16"	33	33	CTS
Inspector: Tristan Jenkins	10 3/4 "	849	849	CTS (600sks)
Date Permit Issued: 5-12-2012	7"	2031	2031	CTS (707sks)
Date Well Work Commenced: 7/25/2012	4 1/2"	4541	4541	Cement Top 1400
Date Well Work Completed: 8/17/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 4610				
Total Measured Depth (ft): 4610				
Fresh Water Depth (ft.): 56'				
Salt Water Depth (ft.): 1698'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 49'				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Benson ; Balltown Pay zone depth (ft) 3300-4406

Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow commingled MCF/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

Second producing formation Speechly ; Bayard Pay zone depth (ft) 2458-3184

Gas: Initial open flow 198 MCF/d Oil: Initial open flow Show Bbl/d

Final open flow 822 MCF/d Final open flow Show Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure 600 psig (surface pressure) after 24 Hours

RECEIVED  
Office of Oil & Gas  
JUL 23 2012  
West Virginia Department of  
Environmental Protection

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

Date



Were core samples taken? Yes \_\_\_\_\_ No X

Were cuttings caught during drilling? Yes \_\_\_\_\_ No X

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Gamma Ray, Temp, Comp Density, Neutron, PE Induction

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

1st Stage : Benson 4397-4406 (20 shots) ; Foam Frac ; 300 sks 20/40 sand ; 500 gal acid

2nd Stage : Balltown 3300-3339 (21 shots) ; Foam Frac ; 300 sks 20/40 sand ; 500 gal acid

3rd Stage : Speechley 2778-3184 ( 20 shots) : Foam Frac : 340 sks 20/40 sand; 500 gal acid

4th Stage : Bayard 2458-2468 (20 shots) : Foam Frac 300 sks 20/40 sand ; 500 gal acid

Plug Back Details Including Plug Type and Depth(s): None

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
<u>Surface:</u>			

SEE ATTACHMENT

## Formation Description

Formation	Top	Bottom	Show
Soil	0	10	
Shales & Sand	10	49	
Coal	49	51	
Shales & Red Rock	51	800	Damp @ 56'
Sands & Shales	800	1170	
Salt Sands	1170	1350	
Shale	1350	1480	
Little Lime	1480	1504	
Shale	1504	1530	
Big Lime	1530	1597	
Big Injun	1597	1690	1690 Salt Water & Gas
Shales	1690	1980	
Gantz	1980	2020	
Sand & Shale	2020	2100	
Gordons	2100	2250	
Shale	2250	2310	
4th Sand	2310	2320	
Shale	2320	2370	
5th Sand	2370	2400	
Shale	2400	2455	
Bayard	2455	2465	
Shale & Sand	2465	2982	
Speechley	2982	2995	
Shales & Siltstones	2995	3300	
Balltown	3300	3330	
Shales	3330	4100	
Riley	4100	4170	
Shales	4170	4400	
Benson	4400	4410	
Shales	4410	TD	
TD	4610		

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: MATLICK HEIRS Operator Well No.: 1

LOCATION: Elevation: 1736 Quadrangle: FELLOWSVILLE

District: COVE County: BARBOUR  
Latitude: 2,240 Feet South of 39 Deg. 17 Min. 30 Sec.  
Longitude: 10,030 Feet West of 79 Deg. 50 Min. 0 Sec.

Company: Texas Keystone, Inc.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
560 Epsilon Drive Pittsburgh, PA 15236				
Agent: Jon Farmer	13 3/8"	42	42	Sanded In
Inspector: Bryan Harris				
Date Permit Issued: 06/23/11	9 5/8"	550	550	200
Date Well Work Commenced: 08/31/11				
Date Well Work Completed: 09/12/11	7"	1982	1982	260
Verbal Plugging:				
Date Permission granted on:	4 1/2"	0	5767	241
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft.): 5810				
Total Measured Depth (ft.): 5810				
Fresh Water Depth (ft.): 165, 170, 850				
Salt Water Depth (ft.): none reported				
Is coal being mined in the area (N/Y)? N				
Coal Depths (ft.): 590, 715				
Void(s) encountered (N/Y) Depth(s): N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation: 5TH ELK Pay zone Depth (ft) 5673 - 5677  
Gas: Initial open flow: G/S TSTM MCF/D Oil: Initial open flow: 0 Bbl/d  
Final open flow: 290 MCF/D Oil: Final open flow: 0 Bbl/d  
Time of open flow between initial and final tests: N/A Hours  
Static rock Pressure: 1350 psig(surface pressure) after 120 Hours

Second Producing formation: 3RD ELK Pay zone Depth (ft) 5307 - 5320  
Gas: Initial open flow: Co-mingled MCF/D Oil: Initial open flow: 0 Bbl/d  
Final open flow: Co-mingled MCF/D Oil: Final open flow: 0 Bbl/d  
Time of open flow between initial and final tests: Hours  
Static rock Pressure: Co-mingled psig(surface pressure) after - Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature 10/28/11  
Date

**RECEIVED**  
**Office of Oil & Gas**

FEB 11 2013

**WV Department of  
Environmental Protection**

Third Producing formation:	<u>ALEXANDER</u>	Pay zone Depth (ft)	<u>4581 - 4588</u>
Gas: Initial open flow:	<u>Co-mingled</u>	MCF/D	Oil: Initial open flow: <u>0</u> Bbl/d
Final open flow	<u>Co-mingled</u>	MCF/D	Oil: Final open flow: <u>0</u> Bbl/d
Time of open flow between initial and final tests:	<u>          </u>	Hours	
Static rock Pressure:	<u>Co-mingled</u>	psig(surface pressure) after	<u>          </u> Hours

**RECEIVED**  
**Office of Oil & Gas**

FEB 11 2013

**WV Department of**  
**Environmental Protection**

Were core samples taken?      No X Were cuttings caught during uniling? Yes      No X

Were N Electrical, N Mechanical, Y or Geophysical logs recorded on this well?  
Y/N Y/N Y/N

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL

Perforated Intervals, Fracturing, or Stimulating:

Perforated 5th Elk 5673' - 5677' (16 shots). BD 3596 #. 150 sks 40/70 & 162 sks 20/40. 568 bbl. Gel Frac.

Perforated 3rd Elk 5307' - 5320' (24 shots). BD 2580 #. 250 sks 40/70 & 114 sks 20/40. 727 bbl. Gel Frac.

Perforated Alexander 4581' - 4588' (21 shots). BD 3538 #. 200 sks 40/70 & 110 sks 20/40. 654 bbl. Gel Frac.

Formations Encountered:	Top Depth	Bottom Depth	Notes
FILL	0	15	
SANDY SHALE	15	30	
SANDSTONE	30	42	
SHALE	42	130	
SANDY SHALE	130	165	DAMP Q 165
SANDSTONE	165	355	1st FW @ 170
SANDY SHALE	355	540	
COAL	540	685	
SANDY SHALE	685	775	
COAL	775	855	DAMP Q 855
SANDSTONE	855	1025	
REDROCK	1025	1210	
SANDY SHALE	1210	1300	
REDROCK	1300	1350	
SANDY SHALE	1350	1390	
REDROCK	1390	1450	
LITTLE LIME	1450	1463	
PENCIL CAVE SHALE	1463	1492	
BIG LIME	1492	1709	
SQUAW SANDSTONE	1709	1713	
SHALE	1713	1773	
WEIR SANDSTONE	1773	1910	
BEREA SANDSTONE	1910	1938	
SHALE	1938	1951	
GANTZ SANDSTONE	1951	1999	
LOWER GANTZ SANDSTONE	1999	2021	
SANDY SHALE	2021	2634	
BAYARD SANDSTONE	2634	2641	
SANDY SHALE	2641	2690	
SPEECHLEY A SANDSTONE	2690	2783	
SPEECHLEY B SANDSTONE	2783	2835	
SANDY SHALE	2835	3305	
BALLTOWN P SANDSTONE	3305	3346	
SANDY SHALE	3346	4307	
DUNSON SILTSTONE	4307	4413	
SANDY SHALE	4413	4558	
ALEXANDER	4558	4594	
SHALE	4594	4760	
1ST ELK SILTSTONE	4760	4773	
SANDY SHALE	4773	5022	
2ND ELK SILTSTONE	5022	5063	
SANDY SHALE	5063	5307	
3RD ELK SILTSTONE	5307	5356	
SANDY SHALE	5356	5638	
5TH ELK SILTSTONE	5638	5690	
SHALE	5690	5810	

**RECEIVED**  
Office of Oil & Gas

FEB 11 2013

WV Department of  
Environmental Protection



WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 12/07/2012  
API #: 47-033-05534

Farm name: Hudkins, R.D. Operator Well No.: Hudkins 1HM

LOCATION: Elevation: 1174' GL Quadrangle: Mount Clare 7.5'

District: Grant County: Harrison  
Latitude: 2.854 Feet South of 39 Deg. 12 Min. 30 Sec.  
Longitude 5.132 Feet West of 80 Deg. 20 Min. 00 Sec.

Company: Petroleum Development Corporation

Address: <u>120 Genesis Boulevard</u>	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>Bridgeport, WV 26330</u>	<u>20"</u>	<u>27'</u>	<u>27'</u>	<u>Grout to Surface</u>
Agent: <u>Bob Williamson</u>	<u>13 3/8"</u>	<u>462'</u>	<u>462'</u>	<u>466</u>
Inspector: <u>Tristan Jenkins</u>	<u>9 5/8"</u>	<u>2709'</u>	<u>2709'</u>	<u>1109</u>
Date Permit Issued: <u>05/12/2011</u>	<u>5 1/2"</u>	<u>13,830'</u>	<u>13,830'</u>	<u>3686</u>
Date Well Work Commenced: <u>07/07/2011</u>				
Date Well Work Completed: <u>10/08/2012</u>				
Verbal Plugging: <u>N/A</u>				
Date Permission granted on: <u>-----</u>				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>7223'</u>				
Total Measured Depth (ft): <u>13,853'</u>				
Fresh Water Depth (ft.): <u>17', 142'</u>				
Salt Water Depth (ft.): <u>1410'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>None Reported</u>				
Void(s) encountered (N/Y) Depth(s) <u>None</u>				

RECEIVED  
Office of Oil & Gas

JAN 29 2013

WV Department of  
Environmental Protection

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Shale Pay zone depth (ft) 7224'

Gas: Initial open flow N/A MCF/d Oil: Initial open flow -- Bbl/d

Final open flow 4,828 MCF/d Final open flow 720 Bbl/d

Time of open flow between initial and final tests ----- Hours

Static rock Pressure 1500 psig (surface pressure) after 72 Hours

Second producing formation ----- Pay zone depth (ft) -----

Gas: Initial open flow ----- MCF/d Oil: Initial open flow ----- Bbl/d

Final open flow ----- MCF/d Final open flow ----- Bbl/d

Time of open flow between initial and final tests ----- Hours

Static rock Pressure ----- psig (surface pressure) after ----- Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

01/28/2013  
Date

Were core samples taken? Yes \_\_\_\_\_ No XX

Were cuttings caught during drilling? Yes XX No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list SLB open hole LWD Ecoscope Image/GR/Dens/Neutron  
gr from 7,190'-13,853', OH Mud Log from 6400'- 13,853'. Pathfinder Directional GR from 2705' - 13,853'. SLB Sonic Scanner/CBL/GR/CCL CH log from 13,748' - 5400'.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Perforated interval 8,241 ft – 13,760 ft (640 shots). Frac'd 16 stages using 380 bbls 15% HCL, and 148,000 bbls of Slickwater carrying 1,323,000 lbs of 100-mesh sand, 5,151,800 lbs of 40/70 sand, and 45,300 lbs of 30/50 sand.

Plug Back Details Including Plug Type and Depth(s): N/A

Formations Encountered: \_\_\_\_\_ Top Depth \_\_\_\_\_ / \_\_\_\_\_ Bottom Depth  
Surface: \_\_\_\_\_

Little Lime	1476	1503	(All depths TVD except MD-TD)
Big Lime	1520	1698	Show Oil, Gas & Water @ 1573'.
Gantz	1982	2013	<b>RECEIVED</b> <b>Office of Oil &amp; Gas</b>  JAN 29 2013  WV Department of Environmental Protection
Fifty Foot	2050	2101	
Gordon Stray	2149	2171	
4th SS	2280	2342	
5th Sand	2356	2383	
Bayard	2468	2489	
Benson	4459	4505	
**All Depths shown above are from the pilot hole log well# 47-033-05556 located on the same 3 well pad.			
Sycamore	6384	6432	
Tully LS	6970	7052	
Marcellus Shale	7161	13,853	MD-TD

WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 12/07/2012  
API #: 47-033-05556

Farm name: Hudkins, R.D. Operator Well No.: Hudkins 3HM

LOCATION: Elevation: 1174' GL Quadrangle: Mount Clare 7.5'

District: Grant County: Harrison  
Latitude: 2.867 Feet South of 39 Deg. 12 Min. 30 Sec.  
Longitude 5.137 Feet West of 80 Deg. 20 Min. 00 Sec.

Company: Petroleum Development Corporation


Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u>				
<u>Bridgeport, WV 26330</u>	<u>20"</u>	<u>27'</u>	<u>27'</u>	<u>Grout to Surface</u>
Agent: <u>Bob Williamson</u>	<u>13 3/8"</u>	<u>462'</u>	<u>462'</u>	<u>466</u>
Inspector: <u>Tristan Jenkins</u>	<u>9 5/8"</u>	<u>2768'</u>	<u>2768'</u>	<u>1135</u>
Date Permit Issued: <u>06/15/2011</u>	<u>5 1/2"</u>	<u>13,934'</u>	<u>13,934'</u>	<u>3671</u>
Date Well Work Commenced: <u>07/12/2011</u>				
Date Well Work Completed: <u>10/09/2012</u>				
Verbal Plugging: <u>N/A</u>				
Date Permission granted on: <u>-----</u>				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>7212'</u>				
Total Measured Depth (ft): <u>13,959'</u>				
Fresh Water Depth (ft.): <u>17', 142'</u>				
Salt Water Depth (ft.): <u>1410'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>None Reported</u>				
Void(s) encountered (N/Y) Depth(s) <u>None</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Shale Pay zone depth (ft) 7197'  
Gas: Initial open flow N/A MCF/d Oil: Initial open flow --- Bbl/d  
Final open flow 5013 MCF/d Final open flow --- Bbl/d  
Time of open flow between initial and final tests 720 Hours  
Static rock Pressure 1550 psig (surface pressure) after 72 Hours

Second producing formation ----- Pay zone depth (ft) -----  
Gas: Initial open flow ----- MCF/d Oil: Initial open flow ----- Bbl/d  
Final open flow ----- MCF/d Final open flow ----- Bbl/d  
Time of open flow between initial and final tests ----- Hours  
Static rock Pressure ----- psig (surface pressure) after ----- Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

RECEIVED  
Office of Oil & Gas

JAN 29 2013

WV Department of  
Environmental Protection

12/07/2012  
Date

Were core samples taken? Yes \_\_\_\_\_ No XX

Were cuttings caught during drilling? Yes XX No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Sonic Scanner/CBL/GR/CCI from 13744'-5450', OH Mud Log from 6100' - 13,959', Weatherford OH Photo Dens/Comp Neu/Dual Laterlog/Comp Sonic from 7380' - Surface (Pilot Log), Baker Directional GR from 2790' - 13,980'.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Perforated interval 7,755 ft – 13,870 ft (4600 shots). Frac'd 15 stages using 357 bbls 15% HCL, and 156,100 bbls of Slickwater carrying 1,473,400 lbs of 100-mesh sand, 5,397,500 lbs of 40/70 sand, and 17,000 lbs of 30/50 sand.

Plug Back Details Including Plug Type and Depth(s):

N/A

Formations Encountered:  
Surface:

Top Depth

/

Bottom Depth

Little Lime	1476	1503	(All depths TVD except MD-TD)
Big Lime	1520	1698	
Gantz	1982	2013	
Fifty Foot	2050	2101	
Gordon Stray	2149	2171	
4th SS	2280	2342	
5th Sand	2356	2383	
Bayard	2468	2489	
Benson	4459	4505	
Sycamore	6290	6370	
Tully LS	6956	7020	
Marcellus Shale	7164	7238	
Tioga Ash	7238	7245	
Onondaga LS	7245	7255	
Huntersville Chert	7255	13,959	MD-TD

RECEIVED  
Office of Oil & Gas

JAN 29 2013

WV Department of  
Environmental Protection

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: David & Barbara Beerbroer Operator Well No: Beerbroer #1 Acres 15.79

LOCATION: Elevation: 1231' Quadrangle: Weston 7.5'

District: Hackers Creek County: Lewis

Latitude: 9,040 Latitude: 39 07' 30"  
Longitude: 13,550 Longitude: 80 22' 00"

Company: <u>Mike Ross Inc.</u>	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: <u>Po Box 219</u>				
<u>Coalton WV 26257</u>				
Agent: <u>Mike Ross</u>	<u>11 1/4</u>	<u>40</u>	<u>40'</u>	<u>Pulled</u>
Inspector: <u>Bryan Harris</u>	<u>8 5/8</u>	<u>1160</u>	<u>1160</u>	<u>315 sacks</u>
Date Permit Issued: <u>03/22/11</u>				
Date Well Work Commenced: <u>4/8/11</u>	<u>4 1/2</u>		<u>6010</u>	<u>700 sacks</u>
Date Well Work Completed: <u>4/13/11</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig				
Total Depth (feet): <u>6667</u>				
Fresh Water Depth (ft.): <u>0</u>				
Salt Water Depth (ft.): <u>0</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.):				

OPEN FLOW DATA

Producing formation: Sycamore Grit, Elk, Alexander, Benson, Balltown, Bayard, Fifth Sand

Pay zone depth: 5620-2140 (ft)

Gas: Initial open flow 60 MCF/d Oil: Initial open flow      Bbl/d

Final open flow 360 MCF/d Final open flow      Bbl/d

Time of open flow between initial and final tests 4 Hours

Static rock Pressure 630 psig (surface pressure) after 72 Hours

Second producing formation      Pay zone depth (ft)     

Gas: Initial open flow      MCF/d Oil: Initial open flow      Bbl/d

Final open flow      MCF/d Final open flow      Bbl/d

Time of open flow between initial and final tests      Hours

Static rock Pressure      psig (surface pressure) after      Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: Mike Ross

By: Mike Ross

Date: January 31, 2013

Date of Frac.: April 26, 2011

Well Name: Beerbroer #1

1<sup>st</sup> Stage - Perfs from 5950-5624, Holes 14, Acid 750 Gals., Bbls water or foam 500, 80/100 sand 100 sacks, 20/40 sand 304 sacks, N2 59,000 SCF, ISP 1775# .

2<sup>nd</sup> Stage - Perfs from 4836-4808, Holes 16, Acid 500 Gals., Bbls water or foam 450, 80/100 sand 80 sacks, 20/40 sand 275 sacks, N2 60,000 SCF, ISP 900# .

3<sup>rd</sup> Stage - Perfs from 4270-4262, Holes 14, Acid 500 Gals., Bbls water or foam 504, 80/100 sand 90 sacks, 20/40 sand 300 sacks, N2 61,000 SCF, ISP .

4<sup>th</sup> Stage - Perfs from 3190-3108, Holes 14, Acid 750 Gals., Bbls water or foam 320, 80/100 sand 298 sacks, 20/40 sand sacks, N2 68,000 SCF, ISP 764 .

**Directions:** 2 miles south of Jane Lew. Right up driveway by red trailer bear right to location on hill.

Details:

Clay	0	-	50
Sand & Shale	50	-	200
Red Rock & Lime	200	-	350
Sand & Shale	350	-	700
Red Rock & Sand	700	-	1330
Blue Monday Sand	1330	-	1360
Shale	1360	-	1400
Big Lime	1400	-	1500
Big Injun Sand	1500	-	1600
Sand & Shale	1600	-	1850
Gordon Sand	1850	-	1900
Sand & Shale	1900	-	2050
Forth Sand	2050	-	2070
Sandy Shale	2070	-	2090
Fifth Sand	2090	-	2160 Show Gas
Sandy Shale	2160	-	2280
Bayard Sand	2280	-	2290
Sandy Shale	2290	-	3090
Balltown Stringers	3090	-	3200 Show Gas
Sandy Shale	3200	-	4240
Benson Sand	4240	-	4260 Show Gas
Sandy Shale	4260	-	4600
Alexander Sand	4600	-	4630
Sandy Shale	4630	-	5590
Elk Sand	5590	-	5610 Show Gas
Sandy Shale	5610	-	5940
Sycamore Grit	5940	-	5950 Show Gas
Sandy Shale	5950	-	6067 TD



State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Gary E. Thomason Operator Well No: Thomason #2 Acres 140

LOCATION: Elevation: 2,105' Quadrangle: Cassidy 7.5'

District: Middle Fork County: Randolph

Latitude: 10,530' Latitude: 38 50' 00"  
Longitude: 2,380 Longitude: 80 02' 30"

Company:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>Mike Ross Inc.</u>				
<u>Address: Po Box 219</u>				
<u>Coalton WV 26257</u>				
<u>Agent: Mike Ross</u>	<u>11 3/4</u>	<u>114</u>	<u>114</u>	<u>100 sacks</u>
<u>Inspector: Bill Hatfield</u>	<u>8 5/8</u>	<u>807</u>	<u>807</u>	<u>300 sacks</u>
<u>Date Permit Issued: 06/09/10</u>				
<u>Date Well Work Commenced: 5/1/11</u>	<u>5 1/2</u>		<u>6968</u>	<u>435 sacks</u>
<u>Date Well Work Completed: 5/5/11</u>				
<u>Verbal Plugging:</u>				
<u>Date Permission granted on:</u>				
<u>Rotary X Cable Rig</u>				
<u>Total Depth (feet): 6970</u>				
<u>Fresh Water Depth (ft.): 80</u>				
<u>Salt Water Depth (ft.): 0</u>				
<u>Is coal being mined in area (N/Y)? N</u>				
<u>Coal Depths (ft.):</u>				

OPEN FLOW DATA

Producing formation: Marcellus Shale,

Pay zone depth: 6940-6890 (ft)

Gas: Initial open flow 10 MCF/d Oil: Initial open flow      Bbl/d

Final open flow 220 MCF/d Final open flow      Bbl/d

Time of open flow between initial and final tests 4 Hours

Static rock Pressure 2000 psig (surface pressure) after 72 Hours

Second producing formation      Pay zone depth (ft)     

Gas: Initial open flow      MCF/d Oil: Initial open flow      Bbl/d

Final open flow      MCF/d Final open flow      Bbl/d

Time of open flow between initial and final tests      Hours

Static rock Pressure      psig (surface pressure) after      Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: Mike Ross

By: Mike Ross

Date: January 31, 2013

Well Name: Thomason #2

2<sup>nd</sup> Stage - Perfs from \_\_\_\_\_ to \_\_\_\_\_, Holes \_\_\_\_\_, Acid \_\_\_\_\_ Gals., Bbls water or foam  
 \_\_\_\_\_, 80/100 sand \_\_\_\_\_ sacks, 20/40 sand \_\_\_\_\_ sacks, N2 \_\_\_\_\_ SCF, ISP \_\_\_\_\_.

3<sup>rd</sup> Stage - Perfs from \_\_\_\_\_ to \_\_\_\_\_, Holes \_\_\_\_\_, Acid \_\_\_\_\_ Gals., Bbls water or foam  
 \_\_\_\_\_, 80/100 sand \_\_\_\_\_ sacks, 20/40 sand \_\_\_\_\_ sacks, N2 \_\_\_\_\_ SCF, ISP \_\_\_\_\_.

4<sup>th</sup> Stage - Perfs from \_\_\_\_\_ to \_\_\_\_\_, Holes \_\_\_\_\_, Acid \_\_\_\_\_ Gals., BbIs water or foam  
 \_\_\_\_\_, 80/100 sand \_\_\_\_\_ sacks, 20/40 sand \_\_\_\_\_ sacks, N2 \_\_\_\_\_ SCF, ISP \_\_\_\_\_.

**Directions:** Cassity Long Run Road before mine at markers 16+ left follow to location at Eng. New Road

### Details:

Sand & Shale	0	-	200	
Red Rock & Sand	200	-	480	
Sand & Shale	480	-	700	
Big Lime	700	-	800	
Injury Sand	800	-	900	
Sand & Shale	900	-	1500	
Fourth Sand	1500	-	1600	
Sandy Shale	1600	-	1650	
Fifth Sand	1650	-	1700	
Sandy Shale	1700	-	3670	
Benson Sand	3670	-	3690	
Sandy Shale	3690	-	4470	
Elk Sand	4470	-	4480	
Sandy Shale	4480	-	6850	
Marcellus Shale	6850	-	6950	
Onadogoa	6950	-	6970	TD

WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 12/6/2011  
API #: 47-085-09916

Farm name: Loren & Michele Bartlett Operator Well No.: W-1623

LOCATION: Elevation: 860' Quadrangle: Harrisville

District: Murphy County: Ritchie  
Latitude: 10770 Feet South of 39 Deg. 10 Min. 00 Sec.  
Longitude 2730 Feet West of 81 Deg. 02 Min. 30 Sec.

Company: Haught Energy Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
HC 68 Box 14				
Smithville, WV 26178	13-3/8"	21'	21'	
Agent: Warren R. Haught	9-5/8"	340'	340'	To Surface
Inspector: David Cowan	7"	1820'	1820'	To Surface
Date Permit Issued: December 14, 2010	4-1/2"	5613'	5613'	3683' (135 Sk)
Date Well Work Commenced: 2/22/2011				
Date Well Work Completed: 08/21/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 5,630'				
Total Measured Depth (ft): 5,633'				
Fresh Water Depth (ft.): 110'				
Salt Water Depth (ft.): 520'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): None				
Void(s) encountered (N/Y) Depth(s) None				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Benson Pay zone depth (ft) 4300'  
Gas: Initial open flow show MCF/d Oil: Initial open flow - Bbl/d  
Final open flow 100 MCF/d Final open flow - Bbl/d  
Time of open flow between initial and final tests 12 Hours  
Static rock Pressure 750 psig (surface pressure) after 24 Hours

Second producing formation Hamilton Shale Pay zone depth (ft) 5450' - 5600'  
Gas: Initial open flow show MCF/d Oil: Initial open flow - Bbl/d  
Final open flow 75 MCF/d Final open flow - Bbl/d  
Time of open flow between initial and final tests 12 Hours  
Static rock Pressure 750 psig (surface pressure) after 24 Hours

**RECEIVED**  
Office of Oil & Gas

FEB 13 2013

**WV Department of  
Environmental Protection**

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Warren R. Haught  
Signature

12/3/11  
Date

Were core samples taken? Yes \_\_\_\_\_ No X

Were cuttings caught during drilling? Yes \_\_\_\_\_ No X

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Gamma Ray, Neutron, Density, Induction, Temp., Audio

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Perforated by Timco Wireline Services 5/12/2011 - 5/13/2011

Perforations at: 3800'-4025' ; 4304' - 4630' ; 5450' - 5592'

Fractured by Universal Well Services 05/13/2011

3 Stage Nitrogen Frac totaling 1,950,000 cubic feet

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

See attached worksheet

**RECEIVED**  
Office of Oil & Gas

FEB 13 2013

WV Department of  
Environmental Protection

McNeil W-1623  
API # 47-085-09916

Formation	Top	Bottom	Remarks
Red Rock & Shale	0	410	
Sand	410	436	
Red Rock	436	510	
Sand	510	534	
Red Rock	534	602	
Slate	602	778	
Dunkard Sand	778	796	
Slate & Shells	796	1010	
Gas Sand	1010	1102	
Slate	1102	1170	
1st Salt Sand	1170	1240	
Shale	1240	1272	
2nd Salt Sand	1272	1298	
Shale	1298	1354	
3rd Salt Sand	1354	1468	
Slate	1468	1572	
Maxon Sand	1572	1612	
Shale	1612	1698	
Little lime	1698	1716	
Pencil Cave	1716	1729	
Big Lime	1729	1867	Gas Smell
Big Injun Sand	1867	1914	at 1880'
Slate Break	1914	1930	
Squaw Sand	1930	1940	
Slate & Shells	2180	2510	
Coffee Shale	2247	2280	
Slate & Shells	2280	2385	
Sand	2385	2406	
Slate & Shells	2406	2664	
Gordon	2664	2671	
Slate & Shells	2671	4578	
Benson Sand	4311	4340	
Slate & Shells	4340	4886	
Alexander Sand	4886	4902	
Slate & Shells	4902	5289	
Sand	5289	5300	
Slate & Shells	5300	5450	
Hamilton Shale	5450	5485	
Slate & Shells	5485	5560	
Devonian Shale	5560	5604	
TD	5630		

**RECEIVED**  
**Office of Oil & Gas**

**FEB 13 2013**

**WV Department of**  
**Environmental Protection**



State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 06-Aug-2012  
API #: 47-085-09993

Farm name: Margaret Kirby, Etal Operator Well No.: Kirby Etal #1

LOCATION: Elevation: 1149' Quadrangle: Smithville 7.5'

District: Murphy County: Ritchie  
Latitude: 1834 Feet South of 39 Deg. 02 Min 30 Sec.  
Longitude 3715 Feet West of 81 Deg. 02 Min 30 Sec.

Company: Murvin & Meier Oil Co.

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P. O. Box 396				
Olney, Illinois 62450				
Agent: P. Nathan Bowles, Jr.				
Inspector: Mr. David Cowan	11 3/4"	210.6	210.6	156.9
Date Permit Issued: 08/06/2012				
Date Well Work Commenced: 10/08/2012	8 5/8"	1398.8	1398.8	462.0
Date Well Work Completed: 12/20/2012				
Verbal Plugging:	4 1/2"	6324.8	6324.8	823.9
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 6348'				
Total Measured Depth (ft): 6348'				
Fresh Water Depth (ft.): 50', 992'				
Salt Water Depth (ft.): 2040'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None				
Void(s) encounter (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation 2<sup>nd</sup> Elk, Lower Rhinestreet Pay zone depth (ft) 5680' to 6270'

Gas: Initial open flow show MCF/d Oil: Initial open flow - Bbl/d

Final open flow 100 MCF/d Final open flow show Bbl/d

Time of open flow between initial and final tests 24 Hours

Static rock Pressure 1450 psig (surface pressure) after 72 Hours

Second producing formation Bradford, Benson, Alexander Pay zone depth (ft) 4591' to 5172'

Gas: Initial open flow show MCF/d Oil: Initial open flow - Bbl/d

Final open flow 100 MCF/d Final open flow show Bbl/d

Time of open flow between initial and final tests 24 Hours

Static rock Pressure 1450 psig (surface pressure) after 72 Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all of the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signed: MURVIN & MEIER OIL CO.  
By: Kathleen Stach Exec. Vice-Pres.  
Date: January 31, 2013

Were core samples taken? Yes\_\_\_ No\_\_X\_\_ Were cuttings caught during drilling? Yes\_\_X\_\_ No\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list:

Photo Density, Compensated Neutron Array Induction

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

**Perforated Intervals, Fracturing, or Stimulating:**

6158' to 6270': 1500 gals 15%, 756 bbls, 80 MSCF Nitrogen, 5000 lbs 80/100, 24,500 lbs 20/40  
5680' to 5736': 500 gals 15%, 290 bbls, 659 MSCF Nitrogen, 25,000 lbs 20/40  
4900' to 5172': 500 gals 15%, 700 MSCF Nitrogen  
4591' to 4623': 500 gals 15%, 700 MSCF Nitrogen

**Plug Back Details Including Plug Type and Depth(s):**

Formations Encountered	Top Depth	Bottom Depth
Fill	0	4
Shale/Sand	4	100
Sand	100	120
Sand/Shale/Red Rock	120	222
Sand/Shale	222	1940
Maxon	1940	2000
Shale/Sand	2000	2071
Big Lime	2071	2150
Big Injun	2150	2245
Sand/Shale	2245	2427
Weir	2427	2480
Sand/Shale	2480	2555
Berea	2555	2600
Sand/Shale	2600	2760
Gordon	2760	2800
Sand/Shale	2800	3530
Warren	3530	3620
Sand/Shale	3620	4125
Speechly	4125	4190
Sand/Shale	4190	4250
Balltown	4250	4500
Sand/Shale	4500	4540
Bradford	4540	4620

Sand/Shale	4620	4730
Riley	4730	4760
Sand/Shale	4760	4875
Benson	4875	4890
Sand/Shale	4890	5030
Alexander	5030	5165
Sand/Shale	5165	5435
1st Elk	5435	5490
Sand/Shale	5490	5650
2nd Elk	5650	5675
Sand/Shale	5675	5875
Rhinestreet	5875	6015
Sand/Shale	6015	6336
Lime	6336	6348

**Total Depth** 6348

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 02/06/2013  
API #: 47-091-00897 F

Farm name: Mayle, Bernard & Doris Operator Well No.: Mayle 1

LOCATION: Elevation: 1380' Quadrangle: Grafton 7.5'

District: Knottsville County: Taylor  
Latitude: 1,440 Feet South of 39 Deg. 17 Min. 30 Sec.  
Longitude 2,050 Feet West of 80 Deg. 00 Min. 00 Sec.

Company: Petroleum Development Corporation

Address: <u>120 Genesis Boulevard</u>	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>Bridgeport, WV 26330</u>	<u>11 3/4"</u>	<u>25'</u>	<u>25'</u>	<u>Sanded In</u>
Agent: <u>Bob Williamson</u>	<u>8 5/8"</u>	<u>1021'</u>	<u>1021'</u>	<u>333</u>
Inspector: <u>Joe McCourt</u>	<u>4 1/2"</u>	<u>5147'</u>	<u>5147'</u>	<u>845</u>
Date Permit Issued: <u>04/28/2009</u>				
Date Well Work Commenced: <u>09/09/2009</u>				
Date Well Work Completed: <u>09/22/2009</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>5212'</u>				
Total Measured Depth (ft): <u>5212'</u>				
Fresh Water Depth (ft.): <u>292'</u>				
Salt Water Depth (ft.): <u>N/A</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>60'-62'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

RECEIVED  
Office of Oil & Gas  
FEB 14 2013

WV Department of  
Environmental Protection

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Speechley, Fifth Sand (commingled) Pay zone depth (ft) 2745', 2305'

Gas: Initial open flow 237 MCF/d Oil: Initial open flow ----- Bbl/d

Final open flow 335 MCF/d Final open flow ----- Bbl/d

Time of open flow between initial and final tests 6 Hours

Static rock Pressure NT psig (surface pressure) after ----- Hours

Second producing formation ----- Pay zone depth (ft) -----


Gas: Initial open flow ----- MCF/d Oil: Initial open flow ----- Bbl/d

Final open flow ----- MCF/d Final open flow ----- Bbl/d

Time of open flow between initial and final tests ----- Hours

Static rock Pressure ----- psig (surface pressure) after ----- Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

02/07/2013  
Date

Were core samples taken? Yes \_\_\_\_\_ No XX

Were cuttings caught during drilling? Yes \_\_\_\_\_ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Hotwell GR/CCL from 2904'-2088'.  
Hotwell GR/CCL from 2560'-2080'.

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

09/09/2009: MIRU BJ & Hotwell & set comp BP @2800'. Pump acid, fill hole, & press test csg to 3500 psi. Perf Spchly from 2741-2749 & pump 85 bbls of 15 Q N2 assist Slickwater pre-pad followed by 37 bbls of 25 Q N2 assist X-link. Then went to 1 ppg sand & pumped 36 bbls of slurry (1880 bbls of 20/40 sand). Fluid was not cross linking. Cut sand & flushed with 38 bbls gel water. RDMO. 9/22/2009: MIRU Hotwell wireline & ran correl log. Set solid comp plug @ 2350' & perf the 5th Sand from 2301-2310. Frac 5th Sand (stage 2) with 20 quality N2 assist Delta X-Link, 29,847 lbs of 20/40 brown sand and 59,602 scf N2 (ATP 2662 psig, MTP 4515 psig) (Avg Rates 15.7 bpm; 2721 scfm). Flushed with 29 bbls and 11 scf N2. Did not get Sand totally flushed.  
Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

See original submitted Well Log for this well API# 47-091-00897.

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas  
Well Operator's Report of Well Work

Farm name: NICE, KENNETH DALE JR. Operator Well No.: J.Q. MCINTYRE 12  
LOCATION: Elevation: 841' Quadrangle: CENTERPOINT 7.5'  
District: MCELROY County: TYLER  
Latitude: 6,665 Feet south of 39 Deg 27 Min 30 Sec.  
Longitude: 5,510 Feet west of 80 Deg 40 Min 0 Sec.

Company Address:	HG Energy PO Box 5519 Vienna, WV 26105	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Joe Taylor				
Date Permit Issued:	07/12/2012				
Date Well Work Commenced:	08/20/2012				
Date Well Work Completed:	08/31/2012				
Verbal Plugging:					
Date Permission Granted On:					
Rotary X Cable Rlg		7"	830'	830'	215 sks
Total vertical Depth (ft):	2960'				
Total Measured Depth (ft):					
Fresh Water Depth (ft):	100',180'	4 1/2"	2867'	2867'	210 sks to surface
Salt Water Depth (ft):	1340'				
Is Coal being mined in ares (Y/N)?	No				
Coal Depths (ft): x	635'-644'				
Void(s) encountered (Y/N) depth(s):	NONE				

OPEN FLOW DATA

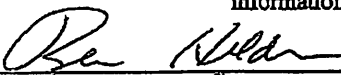

\* Waterflood Producer

Producing formation	Gordon	Pay zone depth (ft)	2700'-2702'
Gas: Initial open flow	* MCF/d	Oil: Initial open flow	* Bbl/d
Final open flow	* MCF/d	Final open flow	* Bbl/d
Time of open flow between initial and final tests	* Hours		
Static rock pressure	* psig (surface pressure)	after	* Hours

Second producing formation		Pay zone depth (ft)	
Gas: Initial open flow	MCF/d	Oil: Initial open flow	Bbl/d
Final open flow	MCF/d	Final open flow	Bbl/d
Time of open flow between initial and final tests	Hours		
Static rock pressure	psig (surface pressure)	after	Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

   
Signature Date



Were core samples taken? No

Were cuttings caught during drilling? No

Were Y Electrical, N Mechanical, N or Geophysical logs recorded on this well?  
Y/N Y/N

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

**Treatment:** Treated perms 2700'-2702', 2708'-2714', 2717.5'-2718.5', & 2737'-2739' w/ 2500 gals 15% HCL acid, 412 bbls cross linked gel, and 17,000# 20/40 sand.

**Well Log:** All depths are measured relative to KB (8' AGL).

Shale w/ sand streaks	0	-	635
Coal	635	-	644
Shale w/ sand streaks	644	-	1056
Sand	1056	-	1072
shale	1072	-	1088
sand	1088	-	1123
shale	1123	-	1198
sand	1198	-	1217
shale	1217	-	1240
sand	1240	-	1257
shale	1257	-	1290
sand	1290	-	1306
shale	1306	-	1340
sand	1340	-	1381
shale	1381	-	1527
sand	1527	-	1546
shale	1546	-	1640
sand	1640	-	1668
shale	1668	-	1845
sand	1845	-	1858
shale	1858	-	1878
sand	1878	-	1918
Big Lime	1918	-	1970
Big Injun	1970	-	2134
shale.	2134	-	2684
Gordon stray	2684	-	2702
shale	2702	-	2704
Gordon	2704	-	2725
shale	2725	-	2736
sand	2736	-	2739
shale	2739	-	2960
TD	2960		

T.D. -Logger

2940 KB

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Mike Ross, Inc Operator Well No: Wilma Goodwin #1 Acres 58.36

LOCATION: Elevation: 1,381' Quadrangle: Berlin 7.5'

District: Buckhannon County: Upshur

Latitude: 4,600 Latitude: 39 02'30"  
Longitude: 7,250 Longitude: 80 15' 00"

Company: Mike Ross Inc.	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: Po Box 219				
Coalton WV 26257				
Agent: Mike Ross	11 3/4	42	42	Sand In
Inspector: Bill Hatfield	8 5/8	1,369	1,369	300 sacks
Date Permit Issued: 03/29/11				
Date Well Work Commenced: 4/20/11	4 1/2		4,868	580 sacks
Date Well Work Completed: 4/25/11				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): 5,113				
Fresh Water Depth (ft.): 160				
Salt Water Depth (ft.): 0				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.):				

OPEN FLOW DATA

Producing formation: Alexander, Benson, Balltown, Fifth Sand

Pay zone depth: 4790-2500 (ft)

Gas: Initial open flow 40 MCF/d Oil: Initial open flow      Bbl/d

Final open flow 320 MCF/d Final open flow      Bbl/d

Time of open flow between initial and final tests 4 Hours

Static rock Pressure 850 psig (surface pressure) after 72 Hours

Second producing formation      Pay zone depth (ft)     

Gas: Initial open flow      MCF/d Oil: Initial open flow      Bbl/d

Final open flow      MCF/d Final open flow      Bbl/d

Time of open flow between initial and final tests      Hours

Static rock Pressure      psig (surface pressure) after      Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: Mike Ross

By: Mike Ross

Date: January 31, 2013

Date of Frac.: 05/05/11

Well Name: Wilma Goodwin #1

1<sup>st</sup> Stage - Perfs from 4778 to 4786, Holes 14, Acid 750 Gals., Bbls water or foam 400, 80/100 sand 75 sacks, 20/40 sand 308 sacks, N2 64,115 SCF, ISP 1571# .

2<sup>nd</sup> Stage - Perfs from 4394 to 4384, Holes 16, Acid 500 Gals., Bbls water or foam 515, 80/100 sand 100 sacks, 20/40 sand 302 sacks, N2 61,752 SCF, ISP 1117# .

3<sup>rd</sup> Stage - Perfs from 2878 to 3279, Holes 14, Acid 500 Gals., Bbls water or foam 500, 80/100 sand 50 sacks, 20/40 sand 300 sacks, N2 54,873 SCF, ISP 922# .

4<sup>th</sup> Stage - Perfs from 2504 to 2512, Holes 16, Acid 500 Gals., Bbls water or foam 410, 80/100 sand sacks, 20/40 sand 318 sacks, N2 55,931 SCF, ISP 1522# .

## **Directions:**

### **Details:**

Red Rock & Shale	0 - 100	
Sand & Shale	100 - 250	
Red Rock & Shale	250 - 360	
Sand & Shale	360 - 480	
Red Rock & Shale	480 - 690	
Sand & Shale	690 - 980	
Red Rock & Shale	980 - 1200	
Sand & Shale	1200 - 1640	
Blue Monday Sand	1640 - 1670	
Pencil Cave	1670 - 1690	
Big Lime	1690 - 1770	
Big Injun Sand	1770 - 1910	
Sand & Shale	1910 - 2250	
Gordan Sand	2250 - 2300	
Sand & Shale	2300 - 2470	
Fifth Sand	2470 - 2520	Show Gas
Sand & Shale	2520 - 3080	
Balltown Stringers	3080 - 3300	
Sand & Shale	3300 - 4380	
Benson Sand	4380 - 4400	
Sand & Shale	4400 - 4780	
Alexander Sand	4780 - 4800	
Sand & Shale	4800 - 5113	TD

**State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas  
Well Operator's Report of Well Work**

Farm name: H.G. ENERGY, LLC. Operator Well No.: L.J. FLUHARTY NO. 7  
LOCATION: Elevation: 781' Quadrangle: PINE GROVE 7.5'  
District: GREEN County: WETZEL  
Latitude: 7,630 Feet south of 39 Deg 32 Min 30 Sec.  
Longitude: 8,110 Feet west of 80 Deg 40 Min 0 Sec.

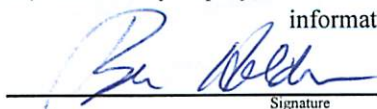
Company Address:	HG Energy 5260 Dupont Rd Parkersburg, WV 26101	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Derek Haught				
Date Permit Issued:	08/31/2012				
Date Well Work Commenced:	10/08/2012				
Date Well Work Completed:	11/01/2012				
Verbal Plugging:					
Date Permission Granted On:					
Rotary X Cable Rig		7"	772'	772'	200 sks
Total vertical Depth (ft):	2840'				
Total Measured Depth (ft):	2840'				
Fresh Water Depth (ft):	180'	4 1/2"	2755'	2755'	210 sks
Salt Water Depth (ft):	1580'				
Is Coal being mined in ares (Y/N)?	No				
Coal Depths (ft):	519'-527'				
Void(s) encountered (Y/N) depth(s):	NONE				

OPEN FLOW DATA

\* Waterflood Producer

Producing formation	Gordon	Pay zone depth (ft)	2606'-2615' 2619'-2621'
Gas: Initial open flow	* MCF/d	Oil: Initial open flow	* Bbl/d
Final open flow	* MCF/d	Final open flow	* Bbl/d
Time of open flow between initial and final tests	* Hours		
Static rock pressure	* psig (surface pressure)	after	* Hours
Second producing formation		Pay zone depth (ft)	
Gas: Initial open flow	MCF/d	Oil: Initial open flow	Bbl/d
Final open flow	MCF/d	Final open flow	Bbl/d
Time of open flow between initial and final tests	Hours		
Static rock pressure	psig (surface pressure)	after	Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

2/1/13  
Date

Were core samples taken? No

Were cuttings caught during drilling? No

Were Y Electrical, N Mechanical, N or Geophysical logs recorded on this well?  
Y/N Y/N Y/N

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

**Treatment :** Treated perms 2606'-2615' and 2619'-2621' w/ 250 gals 15% HCL acid, 250 bbls cross linked gel, and 7,600# 20/40 sand.

**Well Log :** All depths are measured relative to KB (8' AGL ).

Shale w/ sand streaks	0	-	519
Coal	519	-	527
Shale w/ sand streaks	527	-	1107
Sand	1107	-	1150
shale	1150	-	1222
sand	1222	-	1232
shale	1232	-	1244
sand	1244	-	1288
shale	1288	-	1448
sand	1448	-	1511
shale	1511	-	1516
sand	1516	-	1544
shale	1544	-	1558
sand	1558	-	1568
shale	1568	-	1682
sand	1682	-	1706
shale	1706	-	1718
sand	1718	-	1728
Big Lime	1728	-	1778
Big Injun	1778	-	1998
shale	1998	-	2570
Gordon stray	2570	-	2588
shale	2588	-	2599
Gordon	2599	-	2621
shale	2621	-	2628
sand	2628	-	2634
shale	2634	-	2840
TD	2840		

T.D. -Logger	2798	KB
T.D. -Driller	2840	KB

**State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas  
Well Operator's Report of Well Work**

Farm name: WAYNE, ROBERTA B. Operator Well No.: ANTHONY LOVEALL 10

LOCATION: Elevation: 1,066' Quadrangle: PINE GROVE 7.5'  
District: GREEN County: WETZEL  
Latitude: 13,115 Feet south of 39 Deg 32 Min 30 Sec.  
Longitude: 4,955 Feet west of 80 Deg 40 Min 0 Sec.

Company Address:	HG Energy 5260 Dupont Rd Parkersburg, WV 26101	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Derek Haught				
Date Permit Issued:	09/14/2012				
Date Well Work Commenced:	11/10/2012				
Date Well Work Completed:	01/24/2013				
Verbal Plugging:					
Date Permission Granted On:					
Rotary X Cable Rigs		7"	1062'	1062'	240 sks
Total vertical Depth (ft):	3140'				
Total Measured Depth (ft):	3140'				
Fresh Water Depth (ft):	N/A	4 1/2"	3066.15'	3066.15'	225 sks
Salt Water Depth (ft):	1430'				
Is Coal being mined in ares (Y/N)?	No				
Coal Depths (ft):	804'-813'				
Void(s) encountered (Y/N) depth(s):	NONE				

**RECEIVED**  
**Office of Oil & Gas**  
**FEB 05 2013**

**OPEN FLOW DATA**

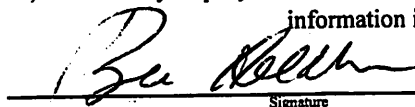
\* Waterflood Injector

**WV Department of  
Environmental Protection**

Producing formation Gordon Pay zone depth (ft) 2906'-2908.5'  
Gas: Initial open flow \* MCF/d Oil: Initial open flow \* Bbl/d  
Final open flow \* MCF/d Final open flow \* Bbl/d  
Time of open flow between initial and final tests \* Hours  
Static rock pressure \* psig (surface pressure) after \* Hours

Second producing formation Pay zone depth (ft)  
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d  
Final open flow MCF/d Final open flow Bbl/d  
Time of open flow between initial and final tests Hours  
Static rock pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

2/1/13  
Date



Were core samples taken? No

Were cuttings caught during drilling? No

Were Y Electrical, N Mechanical, N or Geophysical logs recorded on this well?  
Y/N Y/N Y/N

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

**Treatment :** Treated perms 2906'-2908.5', 2913'-2918', 2932.5'-2936', & 2939.5'-2942' w/ 1250 gals 15% HCL acid, 389 bbls cross linked gel, and 20,000# 20/40 sand.

**Well Log :** All depths are measured relative to KB (8' AGL ).

Shale w/ sand streaks	0	-	804
Coal	804	-	813
Shale w/ sand streaks	813	-	1351
Sand	1351	-	1385
shale	1385	-	1454
sand	1454	-	1473
shale	1473	-	1485
sand	1485	-	1539
shale	1539	-	1570
sand	1570	-	1592
shale	1592	-	1614
sand	1614	-	1638
shale	1638	-	1847
sand	1847	-	1870
shale	1870	-	2004
sand	2004	-	2026
shale	2026	-	2038
sand	2038	-	2049
Big Lime	2049	-	2102
Big Injun	2102	-	2304
shale	2304	-	2879
Gordon stray	2879	-	2896
shale	2896	-	2904
Gordon	2904	-	2920
shale	2920	-	2932
sand	2932	-	2936
shale	2936	-	2938
sand	2938	-	2942
shale	2942	-	3140
TD	3140		

T.D. -Logger	3118	KB
T.D. -Driller	3140	KB